

The efficacy of this remedy, and its superiority to the prolonged administration of bicarbonate of soda, have to be proved by clinical experience.—*Brit. Med. Journ.*, May 19, 1866, from *Bull-Gén. de Thérap.*, April 15, 1866.

SURGICAL PATHOLOGY AND THERAPEUTICS, AND OPERATIVE SURGERY.

28. *Osteo-Myelitis*.—This affection, which is one of the frequent causes of death after amputation or other injuries or surgical operations involving section of bone, attracted the attention of a number of our surgeons during our late war, and was made the subject of a highly interesting paper by Dr. H. Allen, published in the No. of this Journal for January, 1865.

Dr. J. FAYRER, in his address before the Bengal Branch of the British Medical Association, published in the *Indian Annals of Medical Science*, October, 1865, states that with the view of illustrating this affection, he has noted 32 amputations performed within a period of two years in his practice in the wards of the Medical College Hospital. These amputations "were all capital operations, *i. e.*, of the upper and lower extremities, either at the joints, or through the continuity of the long bones. They were—one of the hip, three of the thigh, ten of the leg, four of the ankle (*Syme's*), five at the shoulder-joint, five of the arm, four of the forearm. Of these, thirty-two in all, three were secondary amputations, and of the number, fourteen lived, fifteen died. Of the deaths, nine resulted from pyæmia, the consequence of osteo myelitis, three from pyæmia not depending on bone disease. There were six deaths from other causes, such as tetanus, gangrene, exhaustion. Now it will be at once recognized that this proportion of deaths from pyæmia, depending on bone disease, is something unusual—something very different to the ordinary death returns of other hospitals. It is this, therefore, that I wish specially to call your attention to, not only in regard to its pathology, but with respect to the treatment, which involves a question of amputation of much importance.

"The subject of acute suppuration in bone is one which has, apparently, not attracted much attention hitherto in this country, nor, indeed, has it been, so far as I am aware, so much studied anywhere as by the French surgeons, who have given it the name of *osteo-myélite*, by which we also now distinguish it. M. Jules Roux, Surgeon in Chief of the Great Naval Hospital of St. Maundrièr, in Toulon, is the authority to whom we are indebted for the most elaborate account of this important subject in both its pathological and surgical bearings. His experience was chiefly gained in the treatment of the wounded of the French-Italian war, who were sent to Toulon for treatment—all, consequently, cases of disease or injury of some standing; and the results of his observation and treatment are interesting in the highest degree: for they not only establish the recognition of the disease as a formidable result of operations on bone and of injuries, such as those inflicted by gunshot wounds in bone, but they point to the necessity of thoroughly re-considering the question of amputation, and fully, in my opinion, tend to confirm the view that the site of the amputation has, not less than the time at which it is performed, much to say to the mortality.

"M. Legouest tells us that at the Hospital of Dolma Bachè in Constantinople, out of 639 cases of amputation, M. Salleron lost 224, or little less than one-fourth. The amputations in the continuity of the bone were 490; resulting in 192 deaths from purulent infection of 1 in 21.2. The disarticulations, in number 149, resulted in 32 deaths, or 1 in 42.3.

"M. J. Roux records, in his practice in St. Maundrièr, the following remarkable success in the treatment of serious cases of gunshot injuries requiring amputation, all being secondary amputations.

4	Hip-joint	.	.	.	.	.	.	.	Successful.
13	Shoulder-joint	.	.	.	.	.	.	.	"
1	Knee	"	.	.	.	.	.	.	"
3	Ankle	"	.	.	.	.	.	.	"
1	Metacarpo-phalangeal	.	.	.	.	.	.	.	"

"A series of 22 successful disarticulations, 20 of which followed gunshot injuries of bones.

"Now it is perfectly clear that this extraordinary success is due to something more than the skill of the surgeon, the advantages of the hospital, or other local conditions in which the patients were placed; and I think the evidence is strongly in favour of the fact that disarticulation is frequently a safer method of amputation than section of the injured bone, and also, that in cases where the bone is affected from local endemic causes, it is a clear indication that removal of the bone so diseased is desirable—That, after amputation, they have this tendency, in certain cases, to become diseased, there can be no doubt, and, in certain places, and under certain conditions, this tendency is more strongly marked than in others. It has long forced itself upon my attention in this hospital as one of the most frequent sources of purulent infection and consequent mortality from which we suffer.

"I would be understood that it is not to the *disarticulation*, as such, that I attribute the success in all cases, nor do I urge the operation always in preference to section of the bone of the next segment of the limb. In the cases of the hip and shoulder, disarticulation, of course, alone is practicable; whereas in the leg and forearm, the respective advantages of disarticulation at the elbow or knee may fairly be questioned; and I have no hesitation in saying it is my opinion that, except in cases of endemic tendency to osteo-myelitis, section of the humerus or femur, in their lower third, is as good, if not a better operation than disarticulation. The great point to be attained is removal of the whole of the suppurating bone; of course, whenever the endemic tendency to osteo-myelitis prevails in a hospital, this disarticulation, though, in itself, inferior as an operation to section of the bone (according to my view in the case of the elbow and knee), would be preferred to amputation through the bone, as the fresh bone-wound might, under the endemic influence, give rise to an attack of osteo-myelitis.

"The points of interest in M. Roux's treatment are, that by disarticulating, he anticipates the chance of osteo-myelitis, by not opening the cancellated tissue of the bone (in ordinary wounds); and that in cases where it has set in, he removes the source of blood contamination by the ablation of the affected bone.

"I have no intention of discussing the question of the general application of the term osteo-myelitis in the wide sense in which it is given to the chronic form of disease by the French surgeons, and which involve a whole series of pathological changes in bone, in which the necessity of immediate amputation, is, at all events, not concerned. But it is to the acute and diffusive, a sort of erysipelatous form, an analogue of diffuse suppuration in the areolar tissue, that I refer—a disease, so far as I have seen it, so extensive, as regards the bone it affects, that it causes its entire destruction, and speedily, if not removed, gives rise to that septic condition of the blood which results fatally in a large number of cases, and where, after death, the evidences of the blood-poison are seen in structural changes in the viscera of the most interesting nature. These I will presently describe. It is to this point in the pathology of the disease that I would especially call attention, for, grievous as the injury of the bone is when it becomes the seat of this acute suppuration, it is not *the mere local mischief* that one dreads, although one may cause the loss of the limb. It is the *constitutional disease* to which it gives rise, and the consequent morbid condition of the blood, which is, I believe, if once thoroughly established, and not promptly dealt with, certain to entail fatal results, that we must consider *the great source of danger*. It is, then, not only to the disease, acute suppuration in the cancellated tissue, involving the whole bone and causing its rapid disorganization, but it is also to the treatment by which I believe, if the disease be early recognized, life may be preserved, that I would call attention, and it involves a ques-

tion of amputation of the greatest importance, which I think I have satisfied myself in my own experience, as well as by the results of M. Jules Roux's practice, is deserving of the consideration of every surgeon. It is, indeed, not less than it was pronounced to be by the Baron Larrey—"a system which, if it could be adopted without control, would be, so to speak, to revolutionize the surgery of amputations." It is not, I need hardly say, to be adopted without control, but to be carefully considered and applied in fitting cases. It is a doctrine that will thus be the salvation of many lives which otherwise would be lost."

With regard to treatment, Dr. F. says: "Prevention here is indeed better than cure. The former *may* be accomplished; the latter, when the disease has thoroughly established itself, is, to say the least, very rare.

"The preventive measures are all such as are included in the great questions of hospital hygiene—free ventilation, good food, and segregation of patients. osteo-myelitis occurs no doubt, like other diseases of the same genus, more readily where numbers are crowded together, and where the ventilation and other sanitary arrangements are also defective. The disease is also at times epidemic. It has visited hospitals for a time and passed away, like erysipelas or gangrene, as was the case in the Hôtel Dieu in 1814, where it caused great mortality after amputations. It is more or less endemic, as in our own hospital, and how far it is due here to insanitation I am not prepared to offer an opinion, but I have already said that I think it is at least as much due to the people as to the Hospital, and I can say that no efforts have been spared to remove all local causes of disease.

"Wherever sanitary arrangements are good, with pure air, good food, space large, and, above all, where the patients are not overcrowded, the conditions exist which are unfavourable to the occurrence of the disease.

"As to treatment, the earlier the disease is recognized, the more likely is any treatment to be successful.

"When the pulse quickens, and rigors occur, when the discharge begins to assume an ichorous and unhealthy character; when, on examination, the bone proves to be denuded of periosteum and the medullary cavity filled with dead bone and pus, I am satisfied that the sooner amputation at, or above, the next joint is had recourse to, the better is the chance of saving the patient's life. The danger is of waiting too long, long enough for the blood poison, or the capillary embolism, to have brought about changes in the viscera, which are the precursors, if not the cause, of death.

"On the earliest appearance of these symptoms after an amputation or injury of bone, the sooner the bone is thoroughly examined the better, and the conditions I have described being detected, the sooner amputation at or above the next joint follows, the better also.

"As to the use of internal remedies I have little to say, none, so far as my experience goes, have any effect. The tinct. ferri sesquichloridi, port wine, quinine, and, according to Polli, the sulphites, have been freely used; but to none of them have I been able to ascribe any curative effect. Beyond supporting the strength, removing the source of the toxæmia by amputation or excision of the bone, and the administration of preparations of iron with stimulants, I know of no hope or chance of saving life; and when the lungs or liver have become affected, it is indeed small.

"I cannot say recovery is impossible, for, indeed, if the symptoms be early observed, and prompt measures had recourse to, before the blood-poisoning have advanced too far, I believe it may and does occur; and the case I shall relate to you, in which recovery followed secondary amputation, is one in point. Youth and vigorous constitution, aided by early removal of the diseased bone, no doubt, were the chief causes of recovery.

"In those cases where collections of pus form external to the cavities, as in the joints, or under the superficial muscles, early evacuation of the pus and careful support by nutrients and stimulants, with change of air and other improvements in the hygienic state of the patient, may bring about recovery, but in cases of oxæmia from osteo-myelitis, the tendency appears to be to cause the visceral changes I have alluded to, and not the more superficial deposits of pus.

"Early amputation, or re-amputation, therefore, is the remedy which offers the best chance of success, and it should be, *not* in the continuity of the affected bone, but either at the next joint, or through the next segment of the limb.

"In M. Roux's hands disarticulation has had the most marked success. It has been with him not only curative, but prophylactic. *Prophylactic*, because knowing the tendency of bone to take on this disease when its cancellated tissue is opened or injured, he avoided this by amputating at the joint.

"The proper time for amputation (or removal of the affected bone) in osteomyelitis is not difficult to determine, for it should be as soon as possible after having ascertained that the bone is so affected, and, as I have said, the diagnosis is made by the constitutional and local symptoms, and by passing a probe into the medulla of the bone. Should it impinge on healthy *bleeding* medulla near the surface you may, if the constitutional symptoms are not urgent, wait and see if nature will limit the suppuration and throw off a ring of diseased bone; such expectations are, in my experience, rarely realized, and the doubt is generally resolved, not in favour of the bone. However, this is one of the nice points of discrimination in the treatment, and for which no absolute rules can be laid down. The constitutional signs, the state of the pulse, respiration, and temperature, would be important indications of the patient's condition, and they cannot be too carefully studied. A pulse exceeding 120, persistent temperature above 104, bronchial rales, hurried respiration, tenderness over the hypochondria, are symptoms that should cause the greatest anxiety on their first appearance, and very speedily decide the fate of the patient or of his limb."

29. *Cancer: a new Method of Treatment, by which Malignant Tumours may be removed with Little Pain or Constitutional Disturbance.*—This is the title of a paper read before the British Medical Association at its late meeting at Chester, by W. H. BROADBENT, M. D. London.

The attention of the author was directed to the treatment of cancer under the following circumstances: In 1864 he was consulted by a lady suffering from cancer of the breast. By his advice, the breast was removed by Mr. Walter Coulson. The disease returned, and was again removed in August, 1865. In May of the present year, a tumour was growing more rapidly than ever near the cicatrices of the former operations. It was decided that no further removal was advisable; and, unless something could be done, a miserable fate was before the patient. The hypodermic syringe is now in the hands of every physician; and it seemed to the author that by it some fluid might be injected into the tumour which might so far alter its structure and modify its nutrition that its growth might be retarded or arrested. After considering the various substances which presented themselves to his notice, he selected acetic acid, for the following reasons: 1. This acid does not coagulate albumen, and might, therefore, be expected to diffuse itself through the tumour; and the effects would not be localized at the point injected. 2. If it entered the circulation, it could do no harm in any way. 3. Acetic acid rapidly dissolves the walls and modifies the nuclei of cells on the microscopic slide, and might be expected to do this when the cells were *in situ*. 4. It had been applied with advantage to common ulcerations. On May 18 the first injection was practised. The tumour was of about the size of a small egg, and a patch of skin of about the size of a shilling had become adherent to it. The needle was introduced through sound skin an inch or more from the part involved in the disease, and passed to the centre of the mass. About thirty minims of dilute acid (one part of acid to one and a-half or two of water) were injected. It gave little or no pain. Next morning a bulla containing dark bloody fluid was found to occupy the patch of adherent skin. May 23: This portion of skin dry, hard, and horny; the adjacent part of the tumour not so hard. Again injected. The patient, residing in the country, was not again seen till June 7, when the piece of skin mentioned was found detached from the surrounding sound skin; and a probe could be passed in all directions to a distance of three-quarters of an inch or more between the tumour and the healthy structures. A little discharge issued from the fissure mentioned. Injected on this date, and again on the 9th, the acid used being rather stronger. It gave a little pain, and swelling and tension of the parts around

followed. On June 13, and a few days afterwards, there was a free discharge of fluid and solid portions, with relief of the swelling, etc. No setor whatever attended this discharge, which afterwards diminished greatly. Seen again on June 26, when, on external examination, the tumour was found to be much smaller; and, on passing a probe into the opening, it entered a large cavity extending on all sides. Part of the walls seemed free from malignant structure, but at several points a crust of cancerous deposit remained. On attempting to inject, it was found too thin to retain the fluid, which either entered the tissues and gave great pain, or made its way into the cavity. The cavity was stuffed with lint saturated with dilute acid, and the case left in the care of the family medical attendant, who was to inject as he saw opportunity. July 13: No impression made on the remaining disease, which had, in the opinion of the medical man, extended somewhat. Carbolic acid was tried for a few days as an application, but discontinued, and the cavity dressed daily with strong acetic acid by the medical attendant, and injections practised daily. This energetic treatment gave much pain, and excited inflammation all round. When again seen by the author on August 4, there had been considerable hemorrhage, which had been arrested by free application of tincture of sesquichloride of iron. The result, however, was apparently the entire removal of the remains of malignant disease; and, when last seen, a healthy granulating surface was left at every point. Three other cases were related by the author. The author further formulated certain conclusions from the experiments detailed, and stated the cases to which, in his opinion, the treatment was not applicable. Guided by his experience, he considered large quantities of dilute acid preferable to stronger acid; and he would not, without great hesitation, attempt the destruction of any tumour which had not involved the skin. His aim had originally been, as stated in the early part of the paper, not necrosis of malignant tumours, but a modification in their nutrition. The theoretical grounds for this hope were, that cancer owed its malignancy to its cellular (to use a nomenclature now almost antiquated) or foetal structure; and that in acetic acid we had an agent which might be expected to diffuse itself through the tumour and reach the cells, and, having reached them, to effect changes in their structure, and affect them vitally, while it could scarcely do harm. The results he had brought before the profession at the earliest possible moment. The ultimate value of the treatment he left to be decided by a more extended experience. It was important to use large quantities of dilute acid, and not to have the acid too strong.—*Med. Times and Gazette*, Sept. 1, 1866.

30. *Umbilical Hernia*.—M. DEMARQUAY calls attention to the fact of how little attention has been paid to perfecting our procedures in respect to umbilical hernia as compared with the inguinal and femoral forms of the malady. The inefficient manner in which it is supported in children cannot have escaped the observation of every one, and, with few exceptions, matters are still worse with the adult, giving rise, not only to the danger which ensues on strangulation, but also to a variety of gastro-intestinal disturbances. These last at once disappear when a suitable apparatus is applied. By far the best form of this that M. Demarquay has employed consists in a little pyramidal pad formed of very supple vulcanized caoutchouc, and filled with air. The hernia in children can, by the aid of this, be easily retained. When it has to be applied it is affixed to a very supple strip of diachylon, as broad as itself and nearly long enough to surround the body. It should be renewed every day or two after placing the child in a bath, but it can be dried again for future use, and is very cheap. When at the end of some months the hernia has become very small, or has no longer a tendency to come out, the caoutchouc may be replaced by a little ball of wadding. These air caoutchouc pads may also, when properly adapted in size and form, be very advantageously employed in the adult, affording complete relief to the distressing symptoms induced when the hernia is ill-supported. The diachylon strip requires to be proportionally broader, and two smaller strips should lap over it above and below the pad, to keep it *in situ*.

When umbilical hernia becomes strangulated it is a very serious occurrence, most of the patients dying of peritonitis when an operation has been performed

for the relief of the strangulation. This has induced M. Demarquay to consider whether the operation without opening the sac, so often successfully performed for inguinal hernia, should not be preferred. It seems, indeed, pre-eminently suited for this form of hernia, for, first, the ordinary operation, leading to so large an exposure of the abdominal cavity, is usually fatal; and, next, the course of a strangulated umbilical hernia is much slower, with respect to the production of sphacelus, than is the case in inguinal and femoral hernia, there being, in fact, less danger of the intestine becoming divided or ulcerated by contact with the ring. For these reasons, M. Demarquay, quite recently performed the operation in this manner. An incision was carried upwards and outwards from the summit of the tumour, which equalled a large orange in size. Beyond the base of the tumour the incision only implicated the skin. At the base of the hernia, the external portion of the sac having been recognized, a very small puncture was practised in it, through which the end of the finger was passed and the intestine pushed back. This effected, a curved grooved canula was introduced between the intestine and the umbilical ring, the strangulation being relieved by means of an incision of about a centimètre in length made with a falciform bistoury, directed upwards and outwards. The intestines were left *in situ*, no attempt at their reduction being made. The wound in the skin was brought together by the interrupted suture, and opium was administered in divided doses. For the first twenty-four hours all went on well, when renewed symptoms of strangulation appeared and the patient died. "I found that the cause of death was due to a secondary strangulation, which had been produced by the swelling of all the parts, consequent upon the inflammatory process set up within the cavity of the sac; and I asked myself whether I had not been the involuntary cause of death by not dividing the stricture to a greater extent. I believe this to be the condition of success, and on the next occasion I shall resort to the same procedure, and relieve the strangulation with less timidity. It may not seem very logical that I should recommend an operation which has failed in my hands, but I may observe that, in presence of the inefficiency of our present means of treating strangulated umbilical hernia, it is very desirable that a more efficacious procedure should be sought for, and that in operative medicine we cannot judge of the utility of a procedure from a single case. An operation, however, badly conceived and executed, may sometimes succeed, while a rational one fails. Success is a great thing in surgery, but we must not disdain the investigation of new applications of rational measures when these have for their aim the treatment of an affection almost constantly fatal."—*Brit. and For. Med.-Chir. Rev.*, July, 1866, from *Union Médicale*, No. 33.

31. *Chronic Urethritis*.—M. ALLAIRE terminates an essay upon this subject as follows: 1. It is almost always the result of one or more blennorrhagies. 2. In 90 times out of 100 (in 99 according to Delpéch) one or more strictures exist in chronic urethritis. 3. There is a tendency to the formation of stricture after acute urethritis—60 times out of 69 cases, according to M. Marchal. 4. Changes in the surface of the canal are rare, those of the substance of its tissues being much more common. 5. The formation of the fibrous tissue being slow, treatment by dilatation has the better chance of success the sooner it is employed after such transformation and the atrophy of the normal tissues. 6. The seat of stricture is generally in front of the membranous portion. 7. In the great majority of cases cauterization, even when superficial, urethrotomy, permanent dilatation, and forced dilatation, should be rejected. 8. Rapidly repeated dilatation (*coup-sur-coup*) should only be employed where the strictures are easily dilated, and when the canal presents but little sensibility. 9. Gradual and temporary dilatation should be almost exclusively resorted to, and under its employment accidents either do not take place at all or are very rare and of short duration. 10. Strictures may be radically cured. 11. To compass this the normal calibre of the urethra must be exaggerated, and sometimes the meatus requires to be divided. 12. Bougies must be introduced from time to time during several weeks. 13. A bougie must be passed once a day, and immediately withdrawn, increasing the size progressively from one sixth to one half a millimètre. The bougie must be passed in gently, so as to give as little pain as possible; and when

there is strong contractility manifested by the stricture we should pause for a few seconds, and press with the end of the bougie, which will then pass much more easily. It is often of great importance to pass the instrument while the patient is in a bath. 15. The bladder should be penetrated into, or the stricture passed only to the extent of two centimètres. 16. When any accident arises—such as febrile paroxysms, cystitis, profuse discharge, articular pains, loss of semen, &c.—the dilatation should be suspended. The flow of blood at the commencement does not call for this precaution. 17. Baths or sitting baths should be employed after each *séance*, especially at first. 18. Copaiba, injections, &c., should be abstained from. 19. A metallic instrument should be introduced for several days at the end of the treatment. 20. The duration of the treatment varies greatly; but while a case may be sometimes cured in from eight to twenty days, as a general rule, a month or six weeks is required. 21. When No. 14 or 15 bougie (equivalent to eight and eight and a half millimètres) can be introduced, the discharge will ordinarily stop of itself in the course of a fortnight, without the use of injections.—*Brit. and For. Med.-Chir. Rev.*, July, 1866, from *de Mémoires de Méd. et de Chirurg. Militaire*, Dec.

32. *Treatment of Wounds by Ventilation.*—M. BÉRENGER-FÉRAUD draws attention to a mode of treating wounds and ulcers described by M. Bouisson of Montpellier in the second volume of his *Tribut à la Chirurgie*, under the name of ventilation. This consists in fact in leaving small wounds exposed to the air, and in acting upon larger ones by means of the domestic bellows for a period varying from five to twenty minutes every two, three, or four hours, according to the amount of discharge and moisture that may be present. The object is to secure the formation of a crust over the surface of the wound, under which cicatrization takes place far more rapidly than when the surface is not so protected; and the applications must be sufficiently frequent and prolonged to maintain this crust of a certain thickness. When the crust acquires a degree of rigidity, however, it must be displaced and another formed; and when the discharge is very abundant, the alcoholic dressings, now so much in vogue in the Paris hospitals, should for a while precede the ventilation. The influence of this last in improving the condition of the wounds is almost immediate, a disposition to cicatrize and a diminution of the discharge soon being apparent.

This mode of treatment, according to its originator, M. Bouisson, may determine sedative, astringent, siccative, antiseptic, and tonic action; but it is by no means indicated in all kinds of wounds, and especially in those whose depth is great in proportion to their superficial extent. Thus, it is not fitted for penetrating wounds, as those of a fistulous character, or characterized by anfractuosités. Abundant suppuration is a further contra-indication, except, indeed, when this is due to a mere hyper-secretion dependent upon local or general atony or perverted nutrition, and to the lessening of which alcoholic dressings supply a useful preliminary to the employment of ventilation. In slight burns other means may be preferable, as of more convenient application; but in those of the second and third degree, arrived at the stage of a simple denuded wound, ventilation may advantageously supersede cotton and other impermeable applications. In resorting to this means for ulcers, we have to attend to the constitutional cause of these, as well as to render them by various local applications apt for cicatrization before we resort to ventilation.

Among the secondary advantages of this mode of treatment may be mentioned its simplicity, its easy applicability by the patient or his friends, its economy and its cleanliness. It substitutes a dry for a moist surface, diminishes the chances of septic decomposition, and lessens the chances of infection of the surrounding atmosphere.—*Brit. and For. Med.-Chir. Rev.*, July, 1866, from *Bull. Gén. de Recueil Thérap.*, Jan. 31, 1866.

33. *Successful Amputation at the Hip-joint on account of Malignant Tumour of the Femur.*—MR. JAMES SPENCE maintains that the true principle in regard to amputation for malignant tumours of bone is to amputate beyond the bone affected, and that this is true even where the disease is seated in the femur. He relates (*Edinburgh Medical Journal*, Nov. 1865) the following case in point,

the second in which he has amputated at the hip-joint for malignant growth of the femur, with success:—

"M. W., aged 5 years, was admitted on May 29, 1865, into the Royal Infirmary, suffering from a tumour of the right thigh.

"*History.*—Patient's mother states, that about six months previous to admission the child complained occasionally of wandering pains in the right thigh, for which fomentations were applied. About three months previous to admission, however, the mother observed the patient walking as if her right knee was stiff; she had a considerable amount of pain in the limb; was sometimes fretful and low-spirited, but her general health was good. On being asked where she had pain, the patient referred it to various parts of the thigh; and on examining locally, the mother observed an oval lump on the outside of the lower part of the thigh, about the size of a "blackbird's egg," and said to be deeply seated. No increase of growth was observed, however, till about ten weeks before admission, when the child is said to have received a blow on the lower part of the thigh (with a chair), and since that time the tumour has been increasing rapidly. Since then, the patient has also complained greatly of pains in the limb, on account of which the part has been fomented, poulticed, and leeches, without any relief. The parents then consulted Dr. Thomson, of Yetholm, who, recognizing the nature of the case, prevailed upon them to send her to the Infirmary. During the past few days, the patient has been losing her appetite, is low-spirited and complains more of pains.

"*On admission into hospital.*—Patient appears to be healthy, but is unusually quiet and reserved. Tongue slightly furred; lungs, heart, and other organs, normal. A tumour, of oval form, $5\frac{1}{2}$ inches in length, and about the same in breadth, was found occupying the anterior, outer, and posterior surfaces of the middle and lower part of the femur, just above the condyles. It is of firm consistence throughout, and movable along with the femur. The superficial veins are enlarged, but the skin is not adherent. Patient does not complain of pain on pressing the tumour. The inguinal glands on both sides, as also the right cervical glands, are hard, and somewhat enlarged.

"*1st June.*—P. 86. Sleeps well, and is much better in health. Ordered alternative medicine, followed by tincture of the muriate of iron and cod-liver oil, twice daily.

"*6th.*—P. 96. Has had more darting pains in the limb. General health continues good. Tumour not perceptibly larger since admission of patient into hospital.

"*7th.*—P. 80. Slept well. Chloroform having been administered. Professor Spence made an exploratory incision into the swelling, and discovered it to be a tumour, as diagnosed. The patient's pelvis was then brought well over the edge of the table, and held firmly by an assistant. Professor Spence next, grasping the soft parts with his left hand, entered the point of the knife at the front of the ischial tuberosity, and passing it obliquely upwards in front of the articulation, brought it out almost midway between the anterior superior iliac spine and the trochanter major, so as to form a large anterior flap. Having opened the joint by the first incision, while Dr. Gillespie abducted the limb, the disarticulation was effected, and a posterior flap nearly equal in size to the anterior one was cut from within outwards. Immediately thereafter, a sponge was applied over the posterior flap; Dr. Watson compressed the vessels over the brim of the pelvis. The vessels, including the femoral vein, were then ligatured, the flaps stitched together, pads placed over the anterior and posterior surfaces, and bandaged. When the effects of the chloroform had passed off, an opiate was given, but the patient continued very restless, requiring to be held down for some time. No reactionary hemorrhage took place.

"On examining the limb, the tumour was found to be of a grayish colour, of firm consistence, and of a medullary character. Microscopic examination of the adductor muscles of the thigh showed the nuclei of the muscular fibres to be greatly increased in number, and seemingly about to undergo cancerous degeneration. The fibres of the gluteus muscle showed fatty degeneration, but no proliferous cells."

It is unnecessary to give the details of the course of the cure; it is sufficient

to say that the next morning after the operation, the patient seemed to be rapidly sinking, but by the prompt use of external and internal stimuli, and careful watching, the patient was sustained, and by the 25th of the month convalescence set in and continued uninterrupted. The femoral ligature was withdrawn July 6, and the incision healed without the slightest bad sign.

34. *Syme's Amputation of the Foot*.—Mr. HENRY HANCOCK, in his lectures "on the Anatomy and Surgery of the Human Foot" (*Lancet*, July 21, 1866), gives a table of 219 cases of Syme's operation, exclusive of those performed by Syme himself.

"Of these 144 were performed for caries.

"	22	"	"	accident.
"	2	"	"	gunshot wounds.
"	1	"	"	hypertrophy.
"	1	"	"	malignant disease.
"	1	"	"	necrosis.
"	1	"	"	frost-bite.
"	1	"	"	traumatic gangrene.
"	1	"	"	acute inflammation.
"	44 diseases not stated.			

Results.

13 suffered secondary amputation.

17 died.

183 recovered, and could walk well.

6, results not stated.

"Of the 13 amputations—in 8 the period between Syme's operation and secondary amputation is not stated; in 2, two months; in 1, four months, and in 2, two years intervened between the two operations. Nine of the amputations were performed upon patients who had undergone the primary Syme's operation for caries, and of these one was a confirmed drunkard, one patient had been primarily operated upon for traumatic gangrene, one two years previously for accident, and in the remaining two the disease is not stated.

"Of the 17 fatal cases, 4 died of pyæmia; of these, one had been operated upon for malignant disease, one for accident, one for gunshot wound, and in the fourth the primary disease is not stated. In 5 the operation had been performed for accident, one of the patients dying of pyæmia, as already stated. In 10 the operation had been performed for caries; of these, 1 died twelve months after the operation, 3 died of phthisis, and 1 died of exhaustion caused by diarrhœa.

"These are the results of this operation performed in civil practice: and they must be regarded as most favourable, especially when we consider that it has been restricted neither to classes, sex, nor age. Of the 219 cases, the ages have ranged from one to sixty-four years (although we read that Mr. Syme operated upon an infant aged five months), the youngest, as we have seen, having been operated upon by Mr. Pemberton, of Birmingham; whilst Mr. Marsden and Mr. Gant, of the Royal Free Hospital, and Mr. Nesbitt, of Wolverhampton, can claim the credit of having performed this operation successfully on the three oldest patients hitherto submitted to its procedure.

"In military practice it would seem to be equally successful. Staff Surgeon Gordon, of the 95th regiment, which suffered so severely at the battle of the Alma, thus writes to Mr. Syme: 'I have much pleasure in stating that several cases of amputation of the foot, as first proposed and practised by you, were performed after the battle of the Alma, and the results were most favourable. Those cases which came under my observation healed more rapidly than when the operation was performed at the lower third of the leg, and at the same time a much more useful stump was the result.'"

35. *Mercurial Collodion in the Removal of Syphilitic Patches of Discoloration*.—M. LECLERC states in the *Presse Médicale Belge*, that a patient of his having tried alkaline, vapour, and sea-baths for the removal of those patches

which appear on the skin of syphilitic patients without effect, he recommended her to apply the following lotion, which removed them in a few days: Corrosive sublimate, fifty centigrammes; collodion, fifteen grammes.—*Lancet*, June 9, 1866.

OPHTHALMOLOGY.

36. *Employment of Anæsthetic Agents during Operations on the Eye.*—In this paper, M. WECKER considers three points: 1. What are the real inconveniences in the employment of anæsthetics in ocular surgery? 2. What are the operations in which such employment is useful and legitimate? 3. Which is the anæsthetic agent that should be preferred? With respect to the inconveniences attendant upon the employment of anæsthetics, M. Wecker agrees, with Professor Jacobson, of Königsberg, in the belief that most of these are due to the timidity with which they are administered, large doses capable of producing absolute muscular resolution being necessary in delicate operations on the eye. Still, he observes, it must be remembered that Jacobson practises in a region where, the use of alcoholic drinks being much more general, larger quantities of chloroform are admissible than they would be in warmer or more temperate climates. The production of obstinate vomiting, either during or immediately after the operation, has been attributed to the employment of chloroform; but, as Jacobson truly observes, such vomiting is never so sudden in its appearance as to take the operator by surprise, and that the eye may always be protected from its injurious influence by supporting it with a little charpie held in the hollow of the hand. The compressing bandage, the use of which is indispensable after most operations on the eye, sufficiently protects the organ during any efforts at vomiting which may then take place. To say the least, the objections against the use of anæsthetics have been exaggerated. Among the operations for which they are especially indicated are those in which all violent contraction of the muscles of the eye and eyelids may be the cause or immediate accident, in which the globe of the eye is largely opened. The flap operation for extraction of cataract here occupies the first place; and it is necessary to have performed a great number of extractions; but with the aid of and without the anæsthetic, in order to be able to appreciate how much, in the former case, the section of the flap is facilitated, and how much less trouble the operator experiences in giving to it the exact size and position. And if these are not considered as sufficient inducements to resort to anæsthetics, they will still be found valuable auxiliaries at the moment when it is sought to give issue to the cataract; for, in a subject who has been completely anæsthetized, and when the flap in the cornea has been sufficiently extensive, prolapsus of the vitreous humour, even to the slightest extent, may be prevented. Of this M. Wecker has fully assured himself by having in a great number of cases been able to effect extraction of the lens without opening the capsule, by merely sliding a curette under it, and without any loss of the humour. In fact, when all the muscles of the eye are in a condition of relaxation, and when, after the incision has been made, all intra-ocular pressure has ceased, the vitreous body has no tendency to escape, anæsthetics thus reducing to nothing one of the chief dangers of this operation. Thanks to them, also, all operations become practicable on the youngest children, rendering superfluous the various complicated apparatus which have been invented to fix the head in subjects of this age. We have no longer to dread, as heretofore, that the cries of these little patients will induce hernia of the iris, if, before the anæsthetic influence has passed off, we apply over the eye a sufficiently firm compress. Of course, anæsthetics are just as much indicated in painful operations on the eyelids, enucleation of the eyeball, &c., as in most other surgical operations.

As in operations which themselves cause no danger to life the safest anæsthetics are the most eligible. M. Wecker gives the decided preference to chemically pure rectified ether at 60°, which, indeed, for some time past, he has exclu-